

Notice of Allowability

Application No.

09/822,269

Examiner

Christopher Onuaku

Applicant(s)

NUMATA, KOHJI

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the RCE and amendments filed 3/15/05.
2. ☒ The allowed claim(s) is/are 8-22 (now renumbered 1,2,5,6,3,9,4,8,7,&10-15, respectively).
3. ☒ The drawings filed on 02 April 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 7/5/05.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Sean M. McGinn, Esq on 7/7/05.

The application has been amended as follows:

In the Claims:

Claim 8,

line 2, after "obtained as" , "32 pull-down" has been changed to -
- 3:2 pull-down-- .

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee

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set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 3/15/05 has been entered.

Allowable Subject Matter

3. Claims 8-22 are allowable over the prior art of record.
4. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 8, the invention relates to a method for moving image reproduction for the purpose of display of NTSC format image data obtained as 3:2 pull-down from an image of a movie as a non-interleaved image on a display.

The closest references Nishio (US 6,385,240) discloses a progressive image signal transmitting/receiving apparatus, and a method and a medium each using a bitstream obtained by encoding, e.g., a progressive video signal based on the MPEG2 formats, and Zhu et al (US 6,069,664) a method and apparatus for converting video signals from one format to another format, including for converting a digital progressive video signal to a digital interlaced video signal and back to a digital progressive video signal.

However, Nishio and Zhu et al fail to explicitly disclose a method for playback of a moving image in which an NTSC format image data obtained as 3:2 pull-down from an image of a movie is displayed as a non-interlaced image on a display, where the method comprises making a non-interlaced display of the image at a determined first

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time interval in the case in which the judgment was made that images were not the same, reading image data without making the judgment for a predetermined number of successive frames to be read out including the currently read-out frame when the judgment was that images were the same, forming one frame from an odd field of a currently read-out frame and an even field of the next frame to be read out, so as to reduce the number of frames with respect to each of the predetermined number of successive frames, and making a non-interlaced display of the frames obtained from the predetermined number of successive frames at a predetermined second time interval being different from the first time interval.

Regarding claim 17, the invention relates to a method for moving image reproduction for the purpose of display of NTSC format image data obtained as 3:2 pull-down from an image of a movie as a non-interleaved image on a display.

The closest references Nishio (US 6,385,240) discloses a progressive image signal transmitting/receiving apparatus, and a method and a medium each using a bitstream obtained by encoding, e.g., a progressive video signal based on the MPEG2 formats, and Zhu et al (US 6,069,664) a method and apparatus for converting video signals from one format to another format, including for converting a digital progressive video signal to a digital interlaced video signal and back to a digital progressive video signal.

However, Nishio and Zhu et al fail to explicitly disclose a moving image playback apparatus, where the apparatus comprises an image comparison section, which

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compares the respective even fields stored in the each one of two memories of the frame buffer with each other and which judges images to be the same when a difference between two even fields is within a prescribed value and outputs a result of the judgment, a display buffer switch, which, based on judgment results of the image comparison section, selects one of the even fields and one of the odd fields from the two memories of the frame buffer, and a display controller, which reads out image data from the even and odd fields selected by the display buffer switch respectively and outputs a non-interlaced type of signal, wherein the display buffer switch has input to it the judgment results and only in a case in which the images are judged to be the same, after the memory storing the frame of an immediately previous read-out is overwritten by image data of a next frame, an odd field of the memory storing the currently read-out frame and an even field of the memory storing the next frame are selected, and wherein in other cases even and odd fields of the memory storing the currently read-out frame are selected, the display controller being configured to input the judgment results and so that a display interval for each frame is made at a second interval time for a predetermined number of frames from a time the judgment is made that the images are the same, while the interval being made at a first interval time at other times.

Regarding claim 20, the invention relates to a method for moving image reproduction for the purpose of display of NTSC format image data obtained as 3:2 pull-down from an image of a movie as a non-interleaved image on a display.

The closest references Nishio (US 6,385,240) discloses a progressive image signal transmitting/receiving apparatus, and a method and a medium each using a bitstream obtained by encoding, e.g., a progressive video signal based on the MPEG2 formats, and Zhu et al (US 6,069,664) a method and apparatus for converting video signals from one format to another format, including for converting a digital progressive video signal to a digital interlaced video signal and back to a digital progressive video signal.

However, Nishio and Zhu et al fail to explicitly disclose a moving image playback apparatus, where the apparatus comprises a same-image judgment section, which judges that images are the same when either the data expressing the difference value with respect to the immediately previous frame, or the data representing the vector of the part that has moved from the immediately previous frame in the even field of a read-out frame is within a prescribed value, and which outputs a result of the judgment, a frame buffer having a memory, which stores image data output by the video decoding section, in a form of even and odd fields, respectively which are divided from the frame thus read out, and a display controller, which reads out even and odd fields stored in the memory of the frame buffer and outputs a non-interlaced type of signal, wherein the video decoding section is configured so that only when a judgment that said images are the same is made by the same-judgment section only the odd field of the currently read-out frame is decoded and output to the memory, after which the next frame image data is read and the even field only is decoded and output to the memory, and wherein the display controller is configured so as to input the judgment results and to make a display

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interval formed between every successive two frames, at a second interval time for a predetermined number of successive frames counted from the time the judgment is made that the images are the same, while this interval being made at a first interval time at other conditions.

Conclusion

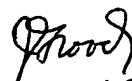
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Onuaku whose telephone number is 571-272-7379. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Groody can be reached on 571-272-7950. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


COO

7/7/05


James J. Groody
Supervisory Patent Examiner
Art Unit-262-2616